

Evaluation of hearing status of workers who worked in the one of tool-making factories in Ardabil in 2016

Abstract

Backgrounds and Objectives: One of the adverse factors affecting the health of workers in recent years was noise of working environments that is major occupational risks. The object of this study was to Evaluation of hearing status of workers who worked in the one of tool-making factories in Ardabil in 2016.

Methods: In this cross — sectional study of 113 workers who worked in the factory in 2016, After the elimination of the exclusion criteria and compliance with at least 3 years of work experience, 113 people were recruited for the census of all workers. For basic information, confounding factors, the use of hearing protection and ..., a questionnaire was used. To determine the noise intensity of working environments in different parts of factory, sound level meter model cel – 440 and for audiometry the Clinical Audiometer model AC 30 was used. The average hearing loss at different frequencies and in the different workshops of factory were calculated and then, the data were analyzed by statistical tests.

Results: In this study, 113 people with an average age of $36/58 \pm 6/76$ years attended. In general, minimum, maximum and average intensity of sound that were exposed workers, were respectively, 49/83, 110/33 and $87/7 \pm 15/2$ dB. The average of hearing loss are different in several occupational groups. So that the volume in different occupational groups is also increasing hearing loss so that most hearing loss in the group that has the highest volume pressing, and the lowest related to administrative groups with the lowest intensity noise. In subjects, average permanent hearing loss in the left ear was $24/01 \pm 10/6$ dB and in the right ear was $21/4 \pm 9/5$ and the both ears was $21/2 \pm 9/2$ dB.

Conclusions: The findings of this study show that noise pollution is prevalent in most parts of the plant and according to the obtained results, the impact of noise and work experience is positive on the hearing loss, therefore, it is necessary to reduce the incidence of hearing loss therefore, it is necessary to reduce the amount of hearing loss, measures to control noise and proper hearing conservation program to be performed.

Keywords: hearing loss, workers, Audiometry